

**VILLAGE OF KEY BISCAYNE
HURRICANE PREPARATION NEWSLETTER
JUNE, 2004**

NEWS ITEMS

- **The Hurricane Season is Underway; According to the experts, we may not be as lucky as last year!**
- **This Newsletter.**
- **Key Biscayne's Application for an Emergency Management Preparedness and Assistance Grant.**

THE HURRICANE SEASON

Before reporting on this season's prognostications from our weather forecasters, we might to consider the fact that Mother Nature can be as bad an evildoer as Man. In fact, Mother Nature can be a killer, and she has certainly proved herself to be a weapon of mass destruction!

Precise or fully valid comparisons between natural and man-made disasters defy analysis and may not be all that useful, except for instilling the notion that we had better pay attention to **both!**

For example, according to some, Hurricane Andrew tops September 11 in terms of the sheer number of insurance claims it produced (approx 700,000 vs. 31,000). When inflation and increases in coastal population are taken into account, Andrew's 1992 total losses of \$26 billion would now cost in excess of \$41 billion according to Christopher Landsea, a research meteorologist with NOAA. This amount compares with the various estimates that have been made for September 11 that begin with about \$ 9 billion in replacement cost and climb to over \$100 billion as more and more indirect costs are factored into the calculations. When even less tangible and measurable economic and psychological factors are then considered, some estimates have placed the costs into the trillions.

Nor do these numbers consider the immeasurable costs of human lives that no one should even try to assess.

But hurricanes and disastrous weather events should not be downplayed. The hazard is real and season is upon us.

According NOAA's [2004 Atlantic hurricane season outlook](#), there is "... a 50% probability of an above-normal hurricane season, a 40% probability of a near-normal season, and a 10% chance of a below-normal season, according to a consensus of scientists at the National Oceanic and Atmospheric Administration's (NOAA) [Climate Prediction Center \(CPC\)](#), the [Hurricane Research Division \(HRD\)](#), and the [National Hurricane Center \(NHC\)](#). See [NOAA's definitions](#) of above-, near-, and below-normal seasons.

The outlook calls for 12-15 tropical storms, with 6-8 becoming hurricanes, and 2-4 of these becoming major hurricanes. These numbers reflect a predicted ACE index in the range of 100%-160% of the median, and indicate a likely continuation of above-normal activity that began in 1995.

The predicted 2004 activity is based primarily on the ongoing [active phase of the Atlantic multi-decadal signal](#), but also reflects expected [warmer sea surface temperatures \(SSTs\) in the tropical Atlantic and Caribbean Sea](#) than can be accounted for by the multi-decadal signal alone. The outlook also reflects the likelihood that ENSO-neutral conditions (no El Niño or La Niña) will continue through August-October, the peak months of the hurricane season. An updated hurricane outlook will be issued in early August."

CAUTIONARY NOTES

1) It is important to recognize that it is currently not possible to confidently predict at these extended ranges the number or intensity of land falling hurricanes, or whether a particular locality will be impacted by a hurricane this season. Therefore, residents and government agencies of coastal and near-coastal regions should always maintain hurricane preparedness efforts regardless of the overall seasonal outlook.

2) *Far more damage can be done by one major hurricane hitting a heavily populated area than by several hurricanes hitting sparsely populated areas or, of course, not making landfall at all. Therefore, hurricane-spawned disasters can occur even in years with near-normal or below-normal levels of activity. Examples of years with near-normal activity that featured extensive hurricane damage and numerous fatalities include 1960 (Hurricane Donna), 1979 (Hurricanes David and Frederic), and 1985 (Hurricanes Elena, Gloria and Juan). Moreover, the nation's most*

damaging hurricane, Andrew in 1992, occurred during a season with otherwise below normal activity."

The National Oceanic & Atmospheric Administration (NOAA) recently issued the above official outlook for the 2004 hurricane season for the Atlantic coast. Concurrently, renowned forecaster William Gray issued his prediction. Both predictions appeared generally consistent with one another. Both agreed that the 12 to 15 tropical storms with six becoming major hurricanes and two to four major hurricanes will constitute an **above-normal level of threat**. Gray, furthermore, suggests that, in his judgment, Broward county's chances of experiencing a direct hit i.e. a land fall are 3.9% compared to 8.7% for Miami-Dade. The difference is attributed largely on the latter's much longer coastline.

But these are statistical perambulations and their relative validity can be debated ad nauseam. It is clear, however, according to Gray that **"...no area on the US mainland has a larger chance than South Florida of being bulldozed by an intense hurricane."**

While the predictions and percentages of risk sound very precise, and are becoming technologically more precise every year, it would be utter foolishness to get trapped in to the delusion that math students know as the "gambler's fallacy" that there is a greater chance of rolling a desired (or undesired) number on the 15th throw, or the ninth throw, than on the very first try. The fact is: **it's an even bet every time!**

In other words we were struck by "Andrew" 12 years ago. That fact is irrelevant in trying to determine whether a similar event will visit us this year, next year, or 50 years in the future. **It could be anytime...and with very limited notice.**



We do know, from experience and meteorological evidence that the height of the hurricane season tends to be in late summer. Right now, however, is the time to prepare;

"The possibility of an above normal Atlantic hurricane season is a compelling reason to prepare now rather than waiting for the unknowns of the last minute rush,"

said Max Mayfield, director of the [NOAA National Hurricane Center](#) in Miami. "Planning and preparation are key to protecting the lives and property of those residents living in areas vulnerable to hurricanes."

The most important part of hurricane planning is a Hurricane Kit, which includes the basic life support you will need after a disaster. Be prepared to be self sufficient for at least 3 days to two weeks...The following list of materials may be useful:

FOOD/WATER*

|Bottled water (1 gallon per day per person) for 14 days*

|Manual can opener*

|Non-perishable foods:*

|Canned meat, fish, fruit and vegetables

|Bread in moisture proof packaging

|Cookies, candy, dried fruit

|Canned soups, & milk

|Powdered or single serve drinks

|Cereal bars

|Package condiments

|Peanut butter and jelly

|Instant coffee & tea

|Flashlight (1 per person) *

|Portable battery powered lanterns

|Glass enclosed candles

|Battery powered radio or TV

|Battery operated alarm clock

|Extra batteries, including hearing aids

|Ice chest and ice

|First Aid Kit-including aspirin, antibiotic cream,

|Mosquito repellent

|Sun screen (45 SPF recommended)

|Waterproof matches/butane lighter

|Money*

|Plain bleach or water purification tablets

|Disposable plates, glasses, and Utensils

|Maps of the area with landmarks on it

COOKING:

|Sterno

|Portable camp stove or grill

|Stove fuel or charcoal, lighter fluid

|Disposable eating utensils, plates & cups

|Napkins & paper towels

|Aluminum foil

|Oven mitts

Personal Supplies:

|Prescriptions (1month supply)*

|Photo copies of prescriptions*

|Toilet paper

|Entertainment: books, magazines, card games etc*

|Soap and detergent

|Toiletries*

Bedding: pillows, sleeping bag*
 Clothing for a few days*
 Rain ponchos, and work gloves
 Extra glasses or contact lenses

Babies:

Disposable diapers*
 Formula, food and medication*

Documents

Photo copies of prescriptions
 Photo identification*
 Proof of occupancy of residence (utility bill)
 Medical history or information
 Waterproof container for document storage
 Back-up disks of your home computer files
 Camera & film
 Weeks Water (1/2 gallon per day)

Other Necessities:

Tools: hammer, wrenches, screw drivers, nails, saw
 Trash bags (lots of them)
 Cleaning supplies
 Plastic drop cloth
 Mosquito netting
 ABC rated fire extinguisher
 Masking or duct tape
 Outdoor extension cords
 Spray paint to identify your home if necessary
 One of your home phones

***If you are planning to evacuate be sure to at least take these items.**

Information on hurricane season and preparedness is plentiful. In this connection the Miami Herald published, on May 25, 2004, a special section titled: "HURRICANE WATCH 2004" that deals with every aspect of the subject. The reading of this Special Section is recommended. If this is not possible, try its website: "storm.herald.com".

Also in this connection it is important to note that Key Biscayne is in a **mandatory evacuation zone and all residents must leave the island when the order to do so is officially announced via the public media by the county mayor.** This mandate reflects an updated policy that puts priority on the evacuation of barrier islands in order to reduce traffic volumes to more manageable levels.

THIS NEWSLETTER

The Village of Key Biscayne had participated in the National Flood Insurance Program since 1972, some 20 years before its incorporation as a Village. In 1998, about six years ago, the Village was approved for participation in the Flood Insurance program's

"Community Rating System" that currently entitles Key Biscayne residents to a 20% reduction in their flood insurance premiums.

The Rating System essentially organizes 19 activities designed to mitigate hazards from floods and related hazards. Among these 19 activities, an important one involves the undertaking of "outreach" projects to keep residents and owners locally informed about these matters beyond national publicity and broad-based general publications.

Accordingly, a part of the Village's response to the insurance program's expectations for this activity has been this newsletter which is published twice each year, at the beginning and after the end of the Hurricane season.

Typically, the start-of-season letter will include weather predictions about what might be anticipated, while the end-of-season letter will usually include a post mortem comparing storm predictions with the weather events that actually occurred.

The Newsletters are organized in two parts.

- **The first covers news items and timely topics** related to special, essentially non-recurrent matters, related to flood hazard mitigation on Key Biscayne.
- **The second part reviews and comments on 10 standard topics** that the National Flood Insurance Program considers critical in evaluating a community's effectiveness in mitigating flood hazards.

The newsletter is mailed to all residents and property owners and copies are usually available at the Village Hall.

The CRS Coordinator

The letter is prepared by Peter Kory who has served the Village in the capacity of "Community Rating System (CRS) Coordinator" since the inception of the program in 1998. As such he is the interface between the Village government, the National Flood Insurance Program and FEMA in all matters dealing with the management of Key Biscayne's floodplain. He should be the initial contact, when information is needed about a property's vulnerability to flooding, or if there are questions about flood maps, flood insurance and related matters. If he does not have the answers, he generally will know where to get them. He is not a part of the regulatory or enforcement administration, but, rather a kind of ombudsman in the management of the Key Biscayne Floodplain.

He is a Key Biscayne resident and property owner, and he can be easily reached as follows:

- Telephone: (305) 361-9414
- Fax: (305) 361-1341
- E-mail: pkory1@bellsouth.net
- Standard Mail Peter Kory #1035
55 Ocean Lane Drive
Key Biscayne, FL 33149

Feedback

Newsletters serve little or no purpose if they are not read. For this reason the Village is hereby soliciting feedback by calling, e-mailing, faxing or otherwise communicating. Such feedback can take the form of comments on the newsletter, questions about flood insurance, flood maps, or flood prevention, as well as other flood-related matters of concern to residents and property owners.

Finally, to further expand on the distribution of the newsletter, it will henceforth be posted on the Village web site: <http://keybiscayne.fl.gov>

EMERGENCY MANAGEMENT PREPAREDNESS AND ASSISTANCE GRANT APPLICATION

The Village has done reasonably well in its management of the floodplain. It has achieved a CRS classification of "6", considered among the top ten in the state of Florida, and this has reduced flood insurance premiums for residents by 20%.

A classification of "5" would result in another 5% reduction and place the Village at the pinnacle of Florida communities that participate in the program.

The Village was also showcased nationally by FEMA last year as a model community in floodplain management. A distinction shared by only two other municipalities in the country!

The Village's storm drainage system is second to none, having demonstrated a capacity to cope with torrential rain storms of better than 60 year intervals in recurring frequency.

Its management of the floodplain has been guided by an official "Floodplain Management Plan" adopted by resolution of the Village Council on April 28, 1998. The plan was prepared with the help of a State Emergency Management Preparedness and Assistance (EMPA) grant which the Village had competitively secured a year earlier.

Despite these accomplishments, the Village has had its problems:

- The Village's Stormwater Management Plan which had formed the basis for its vaunted storm drainage system dates back to 1993. It is obsolete, needs updating and is a major roadblock in securing the CRS "5" Classification.
- The Village has encountered problems in the interpretation of FEMA's flood maps (FIRM) which are obsolete as well, causing hardships for owners caught in confusion over this.
- The current rules in the Village's "Flood Ordinance" governing "substantial improvements" and base flood elevations are inconsistent with the physical and economic conditions that currently exist on Key Biscayne. A review and updating of the Ordinance is needed.

To address these problems, an EMPA grant application, prepared pursuant to a State of Florida notification of "Funding Availability" was filed on January 19, 2004. The application was accepted and subsequently scored on April 26, 2004 ranking 16th out of 42 applicants.

Unfortunately, the State failed to appropriate the funds for which it issued its so-called availability notification, and, accordingly this effort was for naught and the issues involved may have to lay fallow or might have to be resolved in other ways.

CRITICAL FACTORS TO BEAR IN MIND

FLOOD HAZARD

Any substantial flood experienced by Key Biscayne residents and property owners will likely come from a hurricane or tropical storm. A property may be high enough that it was not flooded recently. However, it can still be flooded in the future because the next flood could be worse. If you live in the Village of Key Biscayne, you are in a "Special Flood Hazard Area" inundated by 100-year flood frequency level. In other words, you are in an area prone to flooding where your property is apt to be damaged. This letter and other information you will receive periodically give you some idea of what you can do to protect yourself.

FLOOD WARNING

You should heed all hurricane and tropical storm warnings. These warnings will be broadcast through local television and radio stations, such as: WTVJ, Channel 4; WCIX, Channel 6; WSVN, Channel 7; and, WPLG, Channel 10 on TV; as well as: WQAM, 560 AM and WIOD, 610 AM on the radio.

FLOOD SAFETY

If an evacuation is ordered, you should proceed to rapidly evacuate to a point of safety such as a county shelter or other pre-arranged place. If you are disabled, under a doctor's care or require special help, you can register with the Metro-Dade County Office of Emergency Management by calling 273-6700.

Before you evacuate, there are a number of flood safety precautions to follow. Know appropriate escape routes, remember to turn off your electricity, house power and close all your windows, doors and shutters. If you have time, you can move your valuables and furniture to elevated areas that are less prone to water damage. Prepare emergency supplies of food, water, medicine and other essentials such as batteries, portable radio, candles, etc. so they will be readily available upon evacuation.

Do not walk through flowing water. Currents can be deceptive; six inches of moving water can knock you off your feet. If you walk in standing water, use a pole or stick to ensure that the ground is still there.

Do not drive through a flooded area. More people drown in their cars than anywhere else. Don't drive around road barriers; the road or bridge may be washed out.

Stay away from power lines and electrical wires. One of the greatest flood killers is electrocution. Electrical current can travel through water. Report downed power lines to FPL or the Metro Dade County Office of Emergency Management.

Look out for animals. Small animals that have been flooded out of their home may seek shelter in yours. Use a pole or stick to poke and turn things over and scare away small animals.

Look before you step. After a flood, the ground and floors are covered with debris, including broken bottles and nails. Floors and stairs that have been covered with mud can be very slippery.

FLOOD INSURANCE

If you don't have flood insurance, talk to your insurance agent. In preparation of the hurricane season, you should check that your flood insurance coverage is in effect. Homeowner's insurance policies do not cover damage from floods. However, because Key Biscayne participates in the National Flood Insurance Program, you can purchase a separate flood insurance policy. This insurance is backed by the Federal government and is available to everyone, even for properties that have been flooded.

Some people have purchased flood insurance because the bank required it when they got a mortgage or a home improvement loan. Usually, these policies just cover the building structure and not the contents.

During the kind of flooding that happens in the Village of Key Biscayne, there is usually more damage to the furniture and contents than there is to the structure. If you are covered, check out the amount and make sure you have content coverage. For most people, their home and its content represent their greatest investment. Protect your property by obtaining flood insurance if you have not already done so. Remember: Even if the last flood missed you or you have done some floodproofing, the next flood could be worse.

Remember also that there is normally a waiting period before flood insurance takes effect, so do not wait until a storm warning to talk to your insurance agent.

PROPERTY PROTECTION/FLOODPROOFING

There are several different ways to protect a building from flood damage. One way is to keep the water away by re-grading your lot, or building a small floodwall or earthen berm.

These methods work if your lot is large enough, if flooding is not too deep, and if your property is not in the floodway. The Key Biscayne Building, Zoning and Planning Department can provide this information.

Another approach is to make your walls waterproof and place watertight closures over the doorways. This method is not recommended for houses with basements, or if water will get over two feet deep.

A third approach is to raise the house above flood levels. The Village Building Official can provide information and site specific advice on such measures.

Some houses have sewers that back up during heavy rains. A plug or standpipe can stop this if water does

not get more than one or two feet deep. They can be purchased at the hardware store for less than \$25.00. For deeper sewer backup flooding, talk to a plumber about overhead sewers or a backup valve.

If you know a flood is coming, you should shut off the electricity and move valuable contents upstairs. It is unlikely that you will get much warning, so a detailed checklist, prepared in advance, would help insure that you don't forget anything.

PERMIT REQUIREMENTS

The above measures are called floodproofing or retrofitting. More information is available at the Key Biscayne Public Library. Please bear in mind that any alteration to your building or land requires a permit from the Building, Zoning and Planning Department. Even re-grading or filling requires a permit.

Always check with the Building, Zoning and Planning Department before you build on, alter, re-grade or place fill on your property. A permit may be needed to ensure that projects do not cause problems on other properties.

If you see building or filling without a Village Permit sign posted, contact the Building, Zoning and Planning Department at 365-5512.

SUBSTANTIAL IMPROVEMENTS

The so-called "substantial improvement" rule applies to all work done to an existing structure, including additions during the preceding year. If the total dollar value of this work exceeds 50% of the market value of your structure (not including the value of the land) your entire structure will need to be raised to base flood elevation or otherwise floodproofed to withstand floods reaching base flood elevation. The Federal government requires the Village to have an ordinance enforcing this rule. A copy of this Ordinance may be obtained through the Building, Zoning and Planning Department. Failure by the Village to effectively enforce the Substantial Improvement Rule may result in virtual unavailability of Flood Insurance on Key Biscayne.

DRAINAGE MAINTENANCE

The Village of Key Biscayne minimizes flood damage by constructing, improving and maintaining a storm drainage system. The Village cleans all catch basins at least twice a year to insure efficient operation. The newly installed storm drainage system consists of catch basins connected to state-of-the-art deep injection wells. Effective maintenance by our Public Works Department combined with the new storm drainage system should minimize potential flood damage.

These efforts on the part of the Village require your cooperation and assistance. Here's how you can help:

Do not dump or throw anything into ditches and water channels. Dumping is a Village Ordinance violation. Even grass clippings and branches can accumulate and plug channels. A plugged channel cannot carry water and, when it rains, the water has to go somewhere. Every piece of trash contributes to flooding.

If your property is next to a ditch or a channel, please do your part and keep the banks clear of brush and debris. The Village can help remove major blockages, such as downed trees.

If you see dumping or debris in ditches or channels, contact the Village Public Works Department at 365-8945.

NATURAL AND BENEFICIAL FUNCTIONS OF FLOODPLAINS

The undisturbed areas on Key Biscayne that exist in a natural state perform a number of beneficial functions with respect to the hazards of flooding. They moderate the amount of flooding, they retain floodwaters, they reduce erosion and sedimentation damages, and they mitigate the effects of waves and storm surges from storms. Additionally they provide habitat for fish and wildlife.

For these reasons, the Village of Key Biscayne is involved on many fronts in efforts to both:

Preserve its undisturbed public spaces such as short and long range the beach improvement programs and maintenance programs for the mangrove preserves along the bay fronts, and Increase such areas through the conversion, on an opportunity basis, of unused paved areas to their natural state.

AVAILABILITY OF INFORMATION AND ASSISTANCE

Further information on all of the above subjects and more is available at the Key Biscayne Public Library. Just ask the librarian for the "Floodplain Management Section". Copies of the Flood Insurance Rate Map for Key Biscayne are also available at the Library and at the Village Hall, Department of Building, Zoning and Planning.

If requested the Building Zoning and Planning Department will provide technical assistance and information on resolving problems related to flooding, flood insurance, floodproofing and flood damage prevention. If necessary, site visits will be made to individual properties to review problems and help with solutions.